Biology

Cardiovascular, Respiratory and Gastro-intestinal Systems 10204

Credit Value of Unit 6  GLH of Unit 60  Level of Unit 3

GRADED  ACADEMIC SUBJECT CONTENT

Learning Outcomes

<table>
<thead>
<tr>
<th>The student should be able to</th>
<th>Assessment Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>1  Understand the functions of the main components of the cardiovascular system</td>
<td>1.1 Explain the relationship between structure and function of the cardiovascular system</td>
</tr>
<tr>
<td></td>
<td>1.2 Explain the mechanism of transport of oxygen and carbon dioxide in the body</td>
</tr>
<tr>
<td>2  Understand the functions of the main components of the respiratory system</td>
<td>2.1 Explain the relationship between structure and function of the respiratory system</td>
</tr>
<tr>
<td></td>
<td>2.2 Explain the principle of gaseous exchange in the lungs</td>
</tr>
<tr>
<td>3  Understand the functions of the main components of the gastro-intestinal system</td>
<td>3.1 Explain the relationship between structure and function of the gastro-intestinal system</td>
</tr>
<tr>
<td></td>
<td>3.2 Summarise the role of enzymes in the digestive process</td>
</tr>
<tr>
<td></td>
<td>3.3 Explain how the digestive, cardiovascular and respiratory systems are essential in providing the requirements for cell functioning</td>
</tr>
</tbody>
</table>

Assessment Methodology

Assignment part or wholly undertaken under controlled conditions or a 2000 – 2500 word report.

Grading of this unit

The following grade descriptors will be applied to the assessment of this unit:

1  Understanding of the subject
2  Application of Knowledge
4  Use of Information
5  Communication and Presentation
7  Quality

Please refer to the QAA Grade Descriptors for detail of the components of each descriptor.
Indicative Content

The Cardiovascular System

The transport of blood gases.
The general structure and function of the lymphatic system, including tissue fluid and lymph.

The Respiratory System

The anatomy and physiology of the respiratory system and its associated components (trachea, bronchi, bronchioles, lungs, alveoli).
Mechanical respiration (ventilation).
Gaseous exchange and the characteristics of the respiratory surface.
The control of breathing / respiration and the importance of blood pH.

Gastro-intestinal System

The anatomy and physiology of the alimentary canal and its associated components.
The process of digestion and absorption, including the role of the pancreas (endocrine and exocrine functions) and the liver (bile production and regulatory functions such as metabolism of ammonia, alcohol and drugs, and role in homeostatic control of blood glucose concentration).
The action of enzymes in the digestive process.
The provision of sugars, fats and amino acids as an energy source and building materials for cell maintenance, growth and repair.

Validation end date: 31 August 2019